

Application No. 09/744,771
Amendment "A" dated May 2005
Reply to Office Action mailed March 25, 2005

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1- 41 (Cancelled).

42. (Currently Amended) A method ~~of personalizing a broadcast video stream;~~
~~comprising as recited in claim 78, further comprising:~~

~~providing a broadcast video stream;~~

personalizing the stream by generating overlay data at a ~~the~~ central distribution station;

~~transmitting the personalized broadcast stream to the user using a compressed video transport; and~~

overlaying said overlay data at a set-top box of said user, wherein at least some of said overlay data is not a block-replacement overlay.

43. (Previously Presented) A method according to claim 42, wherein said overlay data comprises opaque data that visually replaces underlying information,

44. (Previously Presented) A method according to claim 42, wherein said overlay data comprises transparent data that visually combines underlying information.

45. (Previously Presented) A method according to claim 42, wherein said transmitting comprises transmitting in a broadcast system, whereby the personalized transmitted stream reaches a plurality of subscribers.

46. (Previously Presented) A method according to claim 45, wherein only a designated user can view said personalized stream.

47. (Previously Presented) A method according to claim 42, wherein said personalization makes said stream interactive.

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48. (Previously Presented) A method according to claim 42, comprising receiving a user input at said central distribution station.

49. (Previously Presented) A method according to claim 48, wherein said input comprises a response to content of a personalized stream.

50. (Previously Presented) A method according to claim 48, comprising determining an identification of a user for which to perform said personalization, from said user input

51. (Previously Presented) A method according to claim 50, wherein said user input comprises a user login ID.

52. (Previously Presented) A method according to claim 42, wherein said video stream is provided as a compressed video stream.

53. (Previously Presented) A method according to claim 42, wherein said stream is transmitted using a single channel of said transport.

54. (Previously Presented) A method according to claim 42, wherein said personalizing comprises modifying a visual portion of said stream.

55. (Previously Presented) A method according to claim 42, wherein said personalizing comprises modifying a data section of said transport, for application by a set-top box at said user.

56. (Previously Presented) A method according to claim 55, wherein modifying said data section comprises adding display commands for said set-top box to said data section.

57. (Previously Presented) A method according to claim 55, wherein modifying said data section comprises adding a compressed overlay for said set-top box to overlay, to said data section.

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58. (Previously Presented) A method according to claim 57, wherein said overlay is compressed using a vector quantization method.

59. (Previously Presented) A method according to claim 57, wherein said overlay is compressed using a chain code compression method.

60. (Previously Presented) A method according to claim 57, wherein said compression does not transmit data corresponding to overlay blocks which do not change between frames.

61. (Previously Presented) A method according to claim 55, wherein modifying said data section comprises adding replacement image blocks for said set-top box to use for replacing blocks of said stream, to said data section.

62. (Previously Presented) A method according to ~~claim~~ 42, wherein said personalization comprises adding an output from a computer program.

63. (Previously Presented) A method according to claim 62, wherein said computer program comprises an e-mail program.

64. (Previously Presented) A method according to claim 62, wherein said computer program comprises an Internet browser.

65. (Previously Presented) A method according to claim 42, wherein said personalization comprises adding information from an Internet source.

66. (Previously Presented) A method according to claim 42, wherein personalizing said stream comprises not modifying an audio section of the stream, such that said audio can be used by a plurality of different personalizations of the stream.

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67. (Previously Presented) A method according to claim 42, wherein personalizing said stream comprises modifying an audio section of the stream.

68. (Previously Presented) A method according to claim 67, wherein said modifying comprises adding feedback for user interactions to said audio.

69. (Previously Presented) A method according to claim 67, wherein said modifying comprises modifying only a single channel of two channels of said audio.

70. (Previously Presented) A method according to claim 67, wherein said modifying comprises enhancing said audio.

71. (Previously Presented) A method according to claim 42, wherein personalizing said stream comprises enhancing a video display of said stream.

72. (Previously Presented) A method according to claim 42, wherein said stream is compressed using an MPEG compliant compression scheme.

73. (Previously Presented) A method according to claim 72, wherein said MPEG comprises MPEG II.

74. (Previously Presented) A method according to claim 42, wherein said compressed video transport comprises an MPEG compliant transport.

75. (Previously Presented) A method according to claim 74, wherein said MPEG comprises MPEG II.

76. (Previously Presented) A method according to claim 42, wherein said central distribution station comprises a cable network head-end.

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77. Previously Presented) A method according to claim 42, wherein said compressed video transport comprises a cable network transport.

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78. (Currently Amended) A method of personalizing a broadcast stream, comprising:
providing a broadcast video stream;

personalizing the stream at a central distribution station in a manner that reduces a visual quality of said provided video stream, wherein reducing the visual quality of the video stream includes using different compression parameters for different GUI display elements of a frame within the video stream, and such that standard GUI display elements of the frame are compressed to a lower quality than unknown GUI display elements of the frame, while adding personalized information; and

transmitting the personalized broadcast stream to the user using a compressed video transport.

79. (Previously Presented) A method according to claim 78, wherein said quality is reduced to maintain a bandwidth requirement of said stream in said transport.

80. (Previously Presented) A method according to claim 78, wherein said quality is reduced once for a plurality of personalizations.

81. (Previously Presented) A method according to claims 78, wherein personalizing said stream comprises showing data side by side with a reduced version of said stream.

82. (Previously Presented) A method according to claim 78, wherein personalizing said stream comprises overlaying data on said stream.

83. (Previously Presented) A method according to claim 82, wherein said data is shown as a ticker.

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84. (Previously Presented) A method according to claim 78, wherein personalizing said stream comprises:

providing a list of display commands;
generating a compressed video stream from said commands; and
combining said compressed video stream and said broadcast stream.

85. (Previously Presented) A method according to claim 84, wherein said generating comprises directly generating transform coefficients from said commands.

86. (Previously Presented) A method according to claim 78, wherein said personalized information is physically added at a set-top of said user.

87. (Previously Presented) A method according to claim 86, wherein said personalized information is transmitted as overlay data.

88. (Previously Presented) A method according to claim 86, wherein said personalized information is transmitted as display commands.

89. (Previously Presented) A method according to claim 78, wherein said stream is compressed using an MPEG compliant compression scheme.

90. (Previously Presented) A method according to claim 89, wherein said MPEG comprises MPEG II.

91. (Previously Presented) A method according to claim 78, wherein said compressed video transport comprises an MPEG compliant transport.

92. (Previously Presented) A method according to claim 91, wherein said MPEG comprises MPEG II.

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93. (Previously Presented) A method according to claim 78, wherein said central distribution station comprises a cable network head-end.

94. (Previously Presented) A method according to claim 78, wherein said compressed video transport comprises a cable network transport.

95. (New) A method as recited in claim 78, wherein personalizing the stream includes duplicating a program that generates the broadcast video stream and transmitting the personalized video stream over a different channel than is used to transmit the broadcast video stream.

96. (New) A method as recited in claim 78, wherein personalizing the video stream includes generating a plurality of different P frames which refer to a same I frame and a same spatial portion of a display, the plurality of different P frames corresponding to different particular users, wherein the method further includes utilizing only some of the P frames, which are relevant for each particular user.

97. (New) A method as recited in claim 78, wherein personalizing the video stream includes replacing at least one compressed block of the video stream with different compressed data and without first decompressing the video stream.